

INTERNATIONAL SEARCH REPORT

International	Application No
PCT/IB 03/05492	

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04R5/033 H04R1/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, IBM-TDB, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT
--

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/039424 A1 (WATANUKI MASANORI) 4 April 2002 (2002-04-04) * page 1, paragraph '0006! - paragraph '0012! * * page 2, paragraph '0025! - page 4, paragraph '0066! * figures 1A-3B,5,6 ---	1-40
X	US 4 222 880 A (BAUR GUENTER ET AL) 16 September 1980 (1980-09-16) column 5, line 11 -column 5, line 54 figure 1 ---	1-40
A	US 5 222 151 A (NAGAYOSHI ATSUSHI ET AL) 22 June 1993 (1993-06-22) column 1, line 11 -column 2, line 14 column 2, line 32 -column 2, line 41 figures 1,2 ---	1-40
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the International search

22 March 2004

Date of mailing of the International search report

02/04/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Meiser, J

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/05492

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02 35802 A (MAYER YARON) 2 May 2002 (2002-05-02) page 2, last paragraph -page 7, paragraph 1 page 9, paragraph 4 -page 11, paragraph 1 figures 1-5 -----	1-40

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No
PCT/IB 03/05492

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2002039424	A1	04-04-2002	JP	2002112383 A		12-04-2002
US 4222880	A	16-09-1980	DE	2742899 A1		29-03-1979
			AT	360599 B		26-01-1981
			AT	681578 A		15-06-1980
			BE	870702 A1		15-01-1979
			CA	1110328 A1		06-10-1981
			FR	2404347 A1		20-04-1979
			GB	1597014 A		03-09-1981
			IT	1098467 B		07-09-1985
			NL	7807118 A		27-03-1979
			SE	7809990 A		24-03-1979
US 5222151	A	22-06-1993	JP	2794920 B2		10-09-1998
			JP	4117899 A		17-04-1992
WO 0235802	A	02-05-2002	AU	1265802 A		06-05-2002
			AU	5060801 A		23-10-2001
			CA	2426860 A1		02-05-2002
			CA	2444128 A1		18-10-2001
			CN	1468469 T		14-01-2004
			EP	1287622 A2		05-03-2003
			GB	2378083 A		29-01-2003
			GB	2384133 A		16-07-2003
			WO	0178442 A2		18-10-2001
			WO	0235802 A2		02-05-2002
			US	2003083058 A1		01-05-2003
			US	2003232597 A1		18-12-2003
			US	2003228843 A1		11-12-2003